

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

10/593, 169  
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WIPO

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Applicant's or agent's file reference 2004CH003		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA416
International application No. PCT/B2005/000569		International filing date (day/month/year) 02.03.2005	Priority date (day/month/year) 17.03.2004	
International Patent Classification (IPC) or national classification and IPC C07F9/09				
Applicant CLARIANT INTERNATIONAL LTD et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 06.12.2005		Date of completion of this report 08.02.2006		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Richter, H  Telephone No. +49 89 2399-		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/IB2005/000569

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-9 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or Industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	2-4,6-9
	No: Claims	1,5
Inventive step (IS)	Yes: Claims	6,9
	No: Claims	2-4,7,8
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: DATABASE CHEMABS [Online] CHEMICAL ABSTRACTS SERVICE,  
COLUMBUS, OHIO, US; 1994, WACHI, TOSHIO ET AL: "Preparation of  
phosphate triesters" XP002289140 retrieved from STN Database accession no.  
1994:54693

D2: CRIES RESEARCH , 25(1), 51-7 CODEN: CAREBK; ISSN: 0008-6568, 1991,  
XP009034124

D3: WO 02/08164 A (BASF AG ; MAAS HEIKO (DE); TROPSCH JUERGEN (DE))  
31 January 2002 (2002-01-31)

D4: WO 03/091192 A (BASF AG ; RULAND ALFRED (DE); BOEHN ROLAND (DE);  
HACKMANN CLAUS (DE);) 6 November 2003 (2003-11-06)

D5: DE 203 03 420 U1 (SASOL GERMANY GMBH) 30 October 2003 (2003-10-30)

2. D1, see RN 151834-99-0, Field "CN" und fig., already discloses a compound  
according to formula I, in which the variables have the following meanings:

$m = 3$

$n = 2 \text{ oder } 3$

$x = 5$

$s = 1$

$r = 3$

$r + s = 4$

Claim 1, therefore, lacks novelty over D1.

D2 , page 52, left hand column "Alkyl Phosphates" describes the phosphoric acid

monoester of tetraethylenglykol-mono-(2-ethylhexyl)etherr und das disodiumsalt (E) thereof and at page 53 tables 1 and 2 tooth protection agents against streptokokkus consisting of (E) and distilled water or (E), dist. water and non-ionic surfaceactive agent.

The free acid of (E) meets the variables of claim 1:

$$m = 1$$

$$n = 2$$

$$x = 4$$

$$s = 1$$

$$r = 3$$

$$r + s = 4$$

Hence, claims 1 und 5 lack novelty over D2.

D3-D5 are no anticipations. D3 discloses alcohol residues which are different from formula II; D4 is concerned with guerbet oligoalkoxylate but does not disclose phosphate esters thereof. D5 only discloses a broader generic definition of phosphateesters of guerbet oligoalkoxilates. In contrast thereto the novel compounds of formula I according to claim 1 are novel as being a selection.

3. Compounds known from D1 and D2 can be prepared and used in analogy to known processes from (see the search report for the specific disclosures). Hence, claims 3,4,8 are obvious over the combination D1/D3 or D2/D3. Furthermore, preparation and use of still new compounds is obvious over the combination of D5 (page 11, lines 20-26) or D4 (example 1) with D3 (example 7, claims 12 and 19). Hence, in addition to the novelty objection claims 1-5, 7 and 8 also obvious.